

CLAIMS

WHAT I CLAIM IS:

- 5 1. A method of merging display items in an encoded format,
comprising:
 providing, in the encoded format, a plurality of display items to
be merged;
 examining the display items on the basis of item priority;
10 defining a target item having a target area; and
 merging the display items in the target area according to item
priority to produce the target item, the target item representative of the
merged plurality of display items.
- 15 2. The method of claim 1, wherein the encoded data associated
with the display items to be merged comprises control data and color data.
3. The method of claim 2, wherein the control and color data
comprises at least some of repeat data, pass-thru data, an end of scan
20 code, and an end of block code.
4. The method of claim 1, wherein examining the display items
comprises examining a display item of highest priority and examining display
items of lower priority to completely fill in the target item as a function of
25 transparency of the highest priority display item.
5. The method of claim 1, wherein examining the display items
comprises examining a display item of highest priority (overlying display

item) and examining underlying display items of lower priority at positions where control data of the overlaying display item indicates transparency.

5 6. The method of claim 1, wherein examining the display items comprises skipping data at particular locations of lower priority display items when corresponding locations of higher priority display items are non-transparent.

10 7. The method of claim 1, wherein merging the display items further comprises using transparency control data associated with the display items so that data associated with the display items is read only once.

15 8. The method of claim 1, wherein the target area associated with the target item extends from a leftmost pixel of a leftmost display item to a rightmost pixel of a rightmost display item for the plurality of display items being merged, the target area further comprising padding.

20 9. The method of claim 1, wherein the display items being merged comprise up to five ranges within the target area, the five ranges comprising left padding of multiples of n pixels, a transition defined across n pixels from the padding to the display item to be merged, mid-object pixels, a transition defined across n pixels from the display item to be merged to right padding, and right padding of multiples of n pixels.

25

10. The method of claim 1, further comprising aligning each of the display items relative to n pixel boundaries within the target area.

11. The method of claim 1, further comprising shifting data associated with a display item to be merged into a position within the target area to facilitate merging.

5 12. The method of claim 1, further comprising producing tokens using the encoded data associated with the display items to be merged, wherein merging the display items further comprises merging the display items using the tokens.

10 13. The method of claim 12, wherein the tokens represent counts of repeated data or pointers to pass-thru data associated with the display items to be merged.

15 14. The method of claim 12, wherein the display items are prioritized to define an arrangement of overlaying display items and underlying display items, further wherein the tokens are modified into smaller tokens by underlying display items depending on tokens found in an overlaying item.

20 15. The method of claim 12, wherein the tokens are produced by decoding the encoded data associated with the display items to be merged.

25 16. The method of claim 15, further comprising re-compressing the tokens associated with the target item into the encoded format.

17. A system for merging display items in an encoded format, comprising:

5 a memory defining a target item having a target area and configured to store a plurality of display items to be merged in the encoded format; and

10 a processor coupled to the memory, the processor examining the display items on the basis of item priority and merging the display items in the target area according to item priority to produce the target item, the target item representative of the merged plurality of display items.

18. The system of claim 17, wherein the encoded data associated with the display items to be merged comprises control data and color data.

15 19. The system of claim 18, wherein the control and color data comprises at least some of repeat data, pass-thru data, an end of scan code, and an end of block code.

20 20. The system of claim 17, wherein the processor examines a display item of highest priority and examines display items of lower priority to completely fill in the target item as a function of transparency of the highest priority display item.

25 21. The system of claim 17, wherein the processor examines a display item of highest priority (overlying display item) and examines underlying display items of lower priority at positions where control data of the overlying display item indicates transparency.

22. The system of claim 17, wherein the processor skips data at particular locations of lower priority display items when corresponding locations of higher priority display items are non-transparent.

5 23. The system of claim 17, wherein the target area associated with the target item extends from a leftmost pixel of a leftmost display item to a rightmost pixel of a rightmost display item for the plurality of display items being merged, the target area further comprising padding.

10 24. The system of claim 17, wherein the display items being merged comprise up to five ranges within the target area, the five ranges comprising left padding of multiples of n pixels, a transition defined across n pixels from the padding to the display item to be merged, mid-object pixels, a transition defined across n pixels from the display item to be merged to
15 right padding, and right padding of multiples of n pixels.

 25. The system of claim 17, wherein the processor aligns each of the display items relative to n pixel boundaries within the target area.

20 26. The system of claim 17, wherein the processor produces tokens using the encoded data associated with the display items to be merged, the processor merging the display items using the tokens.

 27. The system of claim 26, wherein the tokens represent counts
25 of repeated data or pointers to pass-thru data associated with the display items to be merged.

 28. The system of claim 26, wherein the processor prioritizes the display items to define an arrangement of overlaying display items and

underlying display items, the processor modifies the tokens into smaller tokens by use of underlying display items depending on tokens found in an overlaying item.

5 29. The system of claim 26, wherein the processor produces the tokens by decoding the encoded data associated with the display items to be merged.

10 30. The system of claim 29, wherein the processor re-compresses the tokens associated with the target item into the encoded format.

15 31. A system for merging display items in an encoded format, comprising:
 means for examining a plurality of display items to be merged
 on the basis of item priority, the display items compressed according to an
 encode format;
 means for defining a target item having a target area; and
 means for merging the display items in the target area
 according to item priority to produce the target item,
 20 representative of the merged plurality of display items.

25 32. The system of claim 31, further comprising means for producing tokens using encoded data associated with the display items to be merged, wherein the merging means further comprises means for merging the display items using the tokens.

 33. The system of claim 32, wherein the tokens represent counts of repeated data or pointers to pass-thru data associated with the display items to be merged.

34. The system of claim 32, further comprising means for prioritizing the display items to define an arrangement of overlaying display items and underlying display items, and means for modifying the tokens into
5 smaller tokens by underlying display items depending on tokens found in an overlaying item.

35. The system of claim 31, wherein encoded data associated with the display items to be merged comprises control data and color data, the
10 control and color data comprising at least some of repeat data, pass-thru data, an end of scan code, and an end of block code.

36. The system of claim 31, wherein the target area associated with the target item extends from a leftmost pixel of a leftmost display item to
15 a rightmost pixel of a rightmost display item for the plurality of display items being merged, the target area further comprising padding.

37. An information bearing medium comprising processor-readable instructions for merging display items in an encoded format, the
20 processor-readable instructions causing a processor to perform the steps of:
providing, in the encoded format, a plurality of display items to be merged;
examining the display items on the basis of item priority;
defining a target item having a target area; and
25 merging the display items in the target area according to item priority to produce the target item, the target item representative of the merged plurality of display items.

38. The medium of claim 37, wherein the encoded data associated with the display items to be merged comprises control data and color data, the control and color data comprising at least some of repeat data, pass-thru data, an end of scan code, and an end of block code.

5

39. The medium of claim 37, wherein examining the display items comprises examining a display item of highest priority and examining display items of lower priority to completely fill in the target item as a function of transparency of the highest priority display item.

10

40. The medium of claim 37, wherein examining the display items comprises examining a display item of highest priority (overlying display item) and examining underlying display items of lower priority at positions where control data of the overlying display item indicates transparency.

15

41. The medium of claim 37, wherein examining the display items comprises skipping data at particular locations of lower priority display items when corresponding locations of higher priority display items are non-transparent.

20

42. The medium of claim 37, wherein the target area associated with the target item extends from a leftmost pixel of a leftmost display item to a rightmost pixel of a rightmost display item for the plurality of display items being merged, the target area further comprising padding.

25

43. The medium of claim 37, further comprising aligning each of the display items relative to n pixel boundaries within the target area.

44. The medium of claim 37, further comprising producing tokens using the encoded data associated with the display items to be merged, wherein merging the display items further comprises merging the display items using the tokens.

5

45. The medium of claim 44, wherein the tokens represent counts of repeated data or pointers to pass-thru data associated with the display items to be merged.

Patent for Data